

Fort Hood Semi-Annual Weather Briefing



SUMMER TRANSITION SEASON

3d Weather Squadron (3 WS)

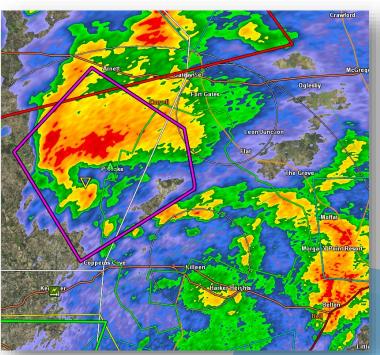
Updated 14 Oct 2016



OVERVIEW



- Local Area Influences
- Summer Climatology
- Hazards
- Training Areas
- Watches/Warnings/Advisories
- Weather Operations
- POCs





Summer Synoptic Pattern



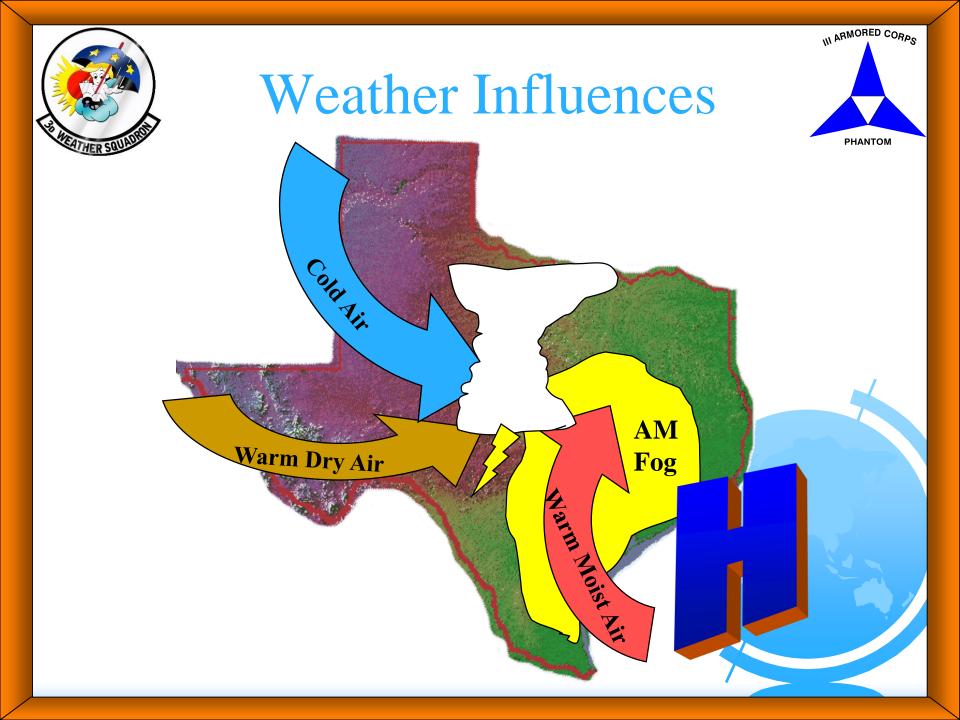
- Marked by the northward movement of the Bermuda High
- Few true frontal passages with the Polar Front Jet remaining well north, keeping region hot & humid
 - Few that do pass are weak and mainly affect the panhandle region
- Most weather associated with Gulf moisture, dryline--"Marfa Front"



Local Area Influences



- Rolling hills with peaks up to 1,500'
- Large lake areas and abundant foliage
 - Act as moisture sources for thunderstorms and fog
- Flat basin surrounded by hills
- "I-35 Rule" Storms dissipate over us; regenerate or intensify east of I-35
- Isolated weather conditions throughout reservation
 - What looks good at RGAAF and HAAF can be different on the north and east-side of the reservation
- Low river crossings, hard ground, low water retention causes flash flood situations





Summer Weather



- Dominated by high temperatures and isolated afternoon and evening thunderstorms (primarily early summer)
 - Average high temperatures are in the mid 90s and lows in the low 70s
 - Extremes range from 55F to 111F
- Early Summer is the rainy season
 - Mostly from thunderstorms

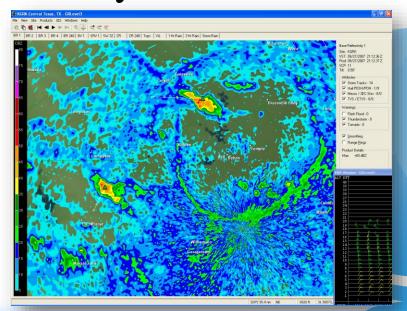


Summer Weather (Cont)



Air mass thunderstorms form during the heat of the day and generally move slowly with weak steering flow aloft or can remain stationary late afternoon and

early evening





Climatological Data



	May	Jun	Jul	Aug	Sep
Temperature					
Mean Max (F)	86	94	95	97	90
Mean Min (F)	65	72	74	75	69
Extm Max (F)	102	108	109	108	111
Precipitation					
Mean Month (in)	4.3	3.4	2.0	2.4	2.5
Mean # TS Days	7	5	6	5	3
Mean # Fog Days	12	6	8	5	8



CEILING CLIMO

(< 3,000 Ft)



% Ceiling < 3000 ft
Name: ROBERT GRAY AAF, TX UNITED STATES Network Type: ICAO Platform ID: KGRK Lat: 31.067 Lon: -97.829 Time Offset: -6.00

Data Derived from 14WS Surface Observation Database / POR: 1973 - 2013

23Z (17L)	26	25	21	15	11	4	2	2	9	14	19	25
227 (16L)	27	27	20	16	10	5	2	1	9	14	19	25
21Z (15L)	29	28	23	17	12	5	2	3	10	14	21	27
20Z (14L)	33	30	27	19	13	7	3	4	10	16	23	30
19Z (13L)	35	34	30	24	15	8	4	5	13	21	27	32
18Z (12L)	37	37	35	29	21	10	5	6	15	24	29	33
17Z (11L)	41	43	40	35	29	14	7	7	19	29	34	35
16Z (10L)	43	46	46	40	36	18	10	10	24	35	40	38
15Z (09L)	43	48	48	46	44	26	15	13	31	39	42	40
14Z (OBL)	43	47	49	50	50	33	19	16	33	43	43	40
13Z (07L)	43	48	48	49	50	34	18	15	31	43	43	41
12Z (O6L)	42	47	49	50	51	33	18	13	31	43	41	39
11Z (05L)	42	45	46	48	51	37	18	13	26	39	40	39
10Z (04L)	42	44	46	45	49	36	18	11	26	36	38	39
09Z (03L)	39	42	45	42	44	30	15	10	24	35	37	38
08Z (02L)	38	39	43	39	40	27	11	8	21	32	37	37
07Z (01L)	38	39	40	36	35	20	9	5	18	29	36	35
06Z (OOL)	36	36	36	32	28	15	6	4	13	23	32	32
05Z (23L)	34	33	33	29	23	11	3	3	1.1	21	30	32
04Z (22L)	31	30	28	23	16	6	2	2	9	18	27	30
03Z (21L)	30	27	22	19	13	5	2	2	8	16	22	28
02Z (20L)	27	27	21	13	12	4	2	2	7	14	19	27
01Z (19L)	26	24	21	15	11	3	2	2	7	13	18	25
00Z (18L)	26	24	21	14	10	3	2	2	7	13	17	23
	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec



CEILING CLIMO

(< 1,000 Ft)



% Ceiling < 1000 ft

Name: ROBERT GRAY AAF, TX UNITED STATES Network Type: ICAO Platform ID: KGRK Lat: 31.067 Lon: -97.829 Time Offset: -6.00 Data Derived from 14WS Surface Observation Database / POR: 1973 - 2013

23Z (17L)	14	11	9	4	2	1	0	0	3	4	8	14
22Z (16L)	15	11	7	4	2	1	0	0	3	5	8	13
21Z (15L)	15	12	9	5	2	1	0	0	3	5	8	14
20Z (14L)	16	13	10	5	1	1	0	1	3	6	8	15
19Z (13L)	18	15	11	6	2	1	0	1	3	8	10	15
18Z (12L)	20	17	13	8	3	1	1	1	5	9	10	16
17Z (11L)	23	21	16	10	5	2	1	1	6	10	13	19
16Z (10L)	25	25	20	13	7	3	2	2	7	13	17	22
15Z (09L)	26	27	22	19	11	5	3	3	11	19	21	24
14Z (08L)	27	28	24	23	15	9	6	5	15	24	24	24
13Z (07L)	26	29	24	24	20	12	8	7	16	24	23	24
12Z (06L)	25	27	24	21	20	11	8	6	15	24	21	23
11Z (05L)	24	24	21	18	19	12	7	5	12	18	19	22
10Z (04L)	26	23	19	16	16	9	7	4	12	16	19	21
09Z (03L)	25	23	19	14	12	7	5	4	1.1	16	17	20
08Z (02L)	23	20	17	13	10	5	3	3	10	13	16	20
07Z (01L)	21	18	17	10	8	3	3	2	8	12	15	18
06Z (QOL)	20	17	15	9	7	3	2	2	6	9	13	18
05Z (23L)	19	15	13	8	5	3	1	2	5	9	13	18
04Z (22L)	17	15	12	7	3	1	1	1	4	8	12	16
03Z (21L)	16	13	10	6	3	1	0	1	4	7	10	15
02Z (20L)	14	15	9	5	3	1	0	1	4	6	10	14
01Z (19L)	14	13	9	5	2	1	0	1	3	5	9	13
00Z (18L)	14	12	9	5	2	1	0	1	4	5	8	12
	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec



VISIBILITY CLIMO

III ARMORED CORPS

(< 3 SM)

% Visibility < 3 SM

Data Darived from 14WS Surface Observation Database / POR: 1973 - 2013

23Z (17L)	10	7	5	2	2	1	1	1	3	3	4	10
22Z (16L)	9	7	4	2	2	1	1	1	2	2	4	8
21Z (15L)	8	7	5	2	3	1	1	1	2	2	4	8
20Z (14L)	9	6	5	3	1	1	1	1	3	2	4	8
19Z (13L)	11	7	6	4	1	1	1	1	2	3	5	9
18Z (12L)	10	7	8	3	2	1	1	1	2	3	4	9
17Z (11L)	14	10	8	4	2	1	1	0	3	4	6	9
16Z (10L)	16	13	9	6	4	1	1	1	3	6	9	13
15Z (09L)	18	16	12	9	ற	1	1	1	4	10	13	16
14Z (OBL)	19	18	15	11	60	2	1	2	6	14	16	16
13Z (07L)	18	19	15	14	on	4	3	3	o	17	17	15
12Z (06L)	16	15	15	13	10	5	4	4	8	14	15	12
11Z (05L)	14	13	12	80	Ю	5	3	2	4	9	13	12
10Z (04L)	16	13	10	7	Ю	3	2	1	4	7	10	12
09Z (03L)	15	13	9	6	3	2	2	1	3	7	10	11
08Z (02L)	13	11	9	5	<u>2</u> 3	1	1	0	2	6	8	10
07Z (01L)	13	10	9	3	3	1	1	1	2	5	7	11
06Z (QOL)	13	9	7	4	3	1	0	0	1	4	6	11
05Z (23L)	12	7	6	4	2	1	0	0	1	4	6	12
04Z (22L)	11	8	5	4	1	1	0	0	1	4	6	11
03Z (21L)	10	7	5	3	1	1	0	0	2	3	5	9
02Z (20L)	8	8	5	2	1	1	0	1	2	3	5	9
01Z (19L)	9	7	6	3	2	1	0	0	2	2	4	8
00Z (18L)	9	8	6	3	2	1	0	0	3	2	4	7
	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec





VISIBILITY CLIMO

(< 1/2 SM)



% Visibility < 1/2 SM

Name: ROBERT GRAY AAF, TX UNITED STATES Network Type: ICAO Platform ID: KGRK Lat: 31.067 Lon: -97.829 Time Offset: -6.00

Data Derived from 14WS Surface Observation Database / POR: 1973 - 2013

23Z (17L)	1	1	0	0	0	0	0	0	0	0	1	2
22Z (16L)	1	1	0	0	0	0	0	0	0	0	0	1
21Z (15L)	1	1	0	0	0	0	0	0	0	0	0	1
20Z (14L)	1	1	0	0	0	0	0	0	0	0	0	1
19Z (13L)	1	0	0	0	0	0	0	0	0	0	0	2
18Z (12L)	1	0	1	0	0	0	0	0	0	0	1	2
17Z (11L)	2	1	2	0	0	0	0	0	0	0	1	2
16Z (10L)	3	2	2	0	0	0	0	0	0	0	<u>2</u> 3	3 3
15Z (09L)	5	3	2	1	0	0	0	0	0	1		
14Z (OBL)	6	4	3	1	1	0	0	0	0	3	5	5
13Z (07L)	5	5	4	2	1	0	0	0	1	3	5	5
12Z (O6L)	5	4	4	2	2	1	0	0	2	2	5	4
11Z (05L)	4	4	2	1	1	1	0	0	1	1	4	3
10Z (04L)	5	3	2	1	1	0	0	0	0	1	3	3
09Z (03L)	4	3	2	1	0	0	0	0	0	1	2	3
08Z (02L)	4	3	2	1	0	0	0	0	0	1	2	3
07Z (01L)	4	2	2	1	0	0	0	0	0	1	1	3
06Z (QOL)	4	2	1	1	0	0	0	0	0	1	1	3
05Z (23L)	3	1	1	0	0	0	0	0	0	1	2	3
04Z (22L)	3	1	1	0	0	0	0	0	0	1	1	2
03Z (21L)	2	1	0	0	0	0	0	0	0	1	1	2
02Z (20L)	2	1	0	0	0	0	0	0	0	1	0	2
01Z (19L)	2	1	0	0	0	0	0	0	0	0	0	2
00Z (18L)	1	1	0	0	0	0	0	0	0	0	1	2
	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec





Summer Hazards



- Degraded Flying Operations
 - Thunderstorms
 - Downbursts Gusts
 - Lightning
 - Hail
- High Temperatures
 - Coupled with high humidity can cause heat injuries and rapid fatigue
 - Ambient temperatures appear to feel warmer than actual temperature (heat index), watch outdoor activity closely



Summer Hazards



Thunderstorms

- Strong gusty wind
- Turbulence
- Low ceilings
- Reduced visibilities
- Hail
- Severe weather possible







THUNDERSTORMS



- Expect severe turbulence, icing, and hail
- Greatest turbulence between updrafts and downdrafts
- Gust fronts (pseudo cold front) can form ahead of advancing thunderstorms
- Expect hail beneath the anvil (not only within or under the thunderstorm)



SEVERE WEATHER



- Peak season
 - March through June
- Most frequent: afternoon/evening hours
- Linear formation along or ahead of fronts—dry line thunderstorms
- RAPID FORMATION!
 - Outflow boundaries enhance further development (usually to the southwest of the line)





LIGHTNING AND ELECTROSTATIC DISCHARGE

WARMORED CORPS

- Leading cause of weather related aircraft accidents
- Can occur in clear air as well as within and around a thunderstorm







- Turbulence is one of the most unexpected aviation hazards to fly through and one of the most difficult to forecast
- Caused by abrupt, small-scale variations in wind speed and direction
- Pilot Reports (PIREPs) are crucial!
 - May trigger advisories to help warn others
 - Always include location, time, intensity, flight level, and aircraft type

Gray METRO: UHF 306.5





(Continued)

- May occur any time without warning
 - Directly proportional to speed:

Faster aircraft=more turbulence experienced

- Inversely proportional to weight:
- Heavier aircraft=less turbulence experienced
- Directly proportional to wing area

Greater distance between leading and trailing edge of wing=more turbulence





(Continued)

- Intensities based upon Airspeed & Climb Rate
 - <u>Light</u>: Slight, erratic changes in altitude and or attitude (pitch, roll, yaw)
 - Moderate: Greater intensity than light, but aircraft remains in positive control
 - Severe: Large abrupt changes in altitude/attitude, large variations in airspeed; control becomes very difficult
 - Extreme: Aircraft violently tossed around with control virtually impossible; may cause structural damage





(Continued)

- Also caused by strong wind over rough terrain (*Fort Hood area not considered rough terrain*)
 - Rougher terrain = More turbulence
 - Higher wind speed = More Turbulence
- Frontal Transition Zone Turbulence
- Jet Stream (CAT)





(Continued)

- Wake Turbulence: Caused by 'Wingtip Vortices'
- Virtually all aircraft produce wingtip vortices while in flight, even rotary wing aircraft; this is especially apparent with heavier aircraft





LOW-LEVEL WIND SHEAR (LLWS)



- Rapid change in wind direction or speed below
 2,000 feet AGL
- May occur with or without Turbulence
- Causes sudden changes in aircraft performance and attitude
- Common occurrence in Central Texas associated with nocturnal low-level jet
- © Can occur with fronts and thunderstorm gust fronts (microburst)

Gray METRO: UHF 306.5





WEATHER WATCHES



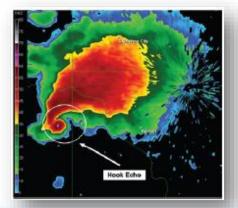
- Special notice for <u>potential</u> of environmental conditions/threats of such intensity as to pose hazard to life or property
 - Issued for Fort Hood Reservation and Western Training Area (WTA)
 - Valid times and area described in the text
- Command decision on whether or not operations are altered (FHR95-1)



WEATHER WARNINGS



- Special notice when an established weather condition/threat of such intensity as to pose a hazard to life or property is occurring or is expected to occur (imminent)
 - Take actions to protect property and life
 - Valid times and area described in the text





- Observed Advisories provide specific notice to an operational agency of weather phenomena impacting operations
 - Issued when condition is observed by Doppler weather radar, weather sensors, or PIREPs
 - Valid for area described in the text
 - Valid "Until Further Notice" and will be cancelled when the condition is no longer occurring



Fort Hood Reservation



Watch / Warning / Advisory

Fort Hood Reservation

WEATHER WARNINGS:

- Tornado / Funnel Cloud (15 min)
- Severe TSTM (1 hr)
- Damaging Wind \geq 45 kts (1 hr)
- Moderate (Strong) TSTM (1 hr)
- Strong Wind 35-44 kts (1 hr)
- Freezing Precipitation (1 hr)
- Heavy Rain 2 in w/i 12 hr (1 hr)
- Heavy Snow 2 in w/i 12 hr (1 hr)
- Lightning (Observed)

Note: Lightning Warning will specify if it includes RGAAF and HAAF or not



WEATHER WATCH

(As potential warrants)

- Tornado / Funel Cloud
- Severe TSTM
- Damaging Wind > 45 kts
- Freezing Precipitation
- Lightning (30 min)

GRK

OBESERVED WEATHER ADVISORIES:

LLWS below 2K ft w/i 50nm Fort Hood

MDT Icing or greater below 10K ft w/i 50nm Fort Hood MDT Turb or greater below 10K ft w/i 50 nm Fort Hood Surface Wind 25 knots or greater Fort Hood Reservation



Fort Hood Reservation



Severe Thunderstorm

- Damaging wind \geq 45 knots <u>and/or</u>
- Damaging hail $\geq \frac{1}{2}$ inch in diameter

Moderate (Strong) Thunderstorm

- High wind \geq 35 knots to < 45 knots <u>and/or</u>
- Large hail $\geq \frac{1}{4}$ inch to $< \frac{1}{2}$ inch

☞ IMPORTANT: Refer to FH Reg 95-1 for specific severe weather plans/actions



WESTERN TRAINING AREA

Watch / Warning

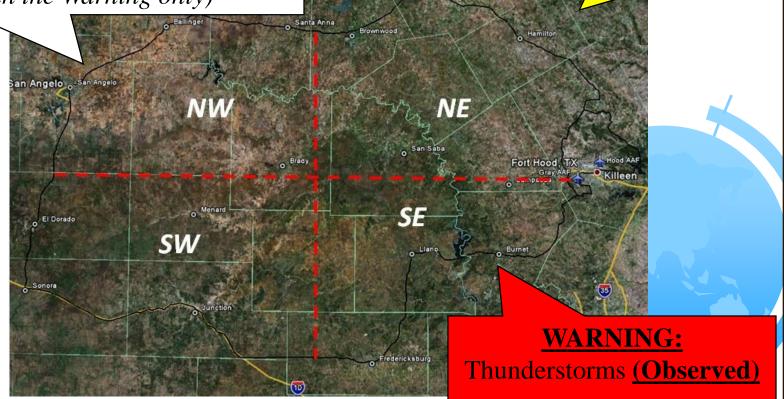


WTA

Divided into 4 sectors
(Text will specify area(s) impacted
in the Warning only)

WEATHER WATCH

Thunderstorms (2 hr advance notice)





PILOT REPORTS (PIREPs)



- Provide forecasters additional observations PLEASE CALL US!!! for the local flying area
 - Thunderstorms
 - Turbulence
 - Icing
 - Low-Level Wind Shear (LLWS)
 - Cloud conditions
 - Wind, temperature, etc..
 - Visibility, weather (i.e., fog, rain, etc.)
- PMSV frequencies: UHF 306.5





RGAAF Weather Station Operations



- RGAAF Weather Station located on West Fort Hood, Airfield Ops Bldg 90029:
 - 24/7 Operations
 - Usually 2 Forecasters Mon-Fri 0700-2300L
 - 1 Forecaster Nights, Weekends, & Holidays
 - KGRK / KHLR Automated Weather
 Observations—augmented IAW FHR115-1
 - Flight Weather Briefings

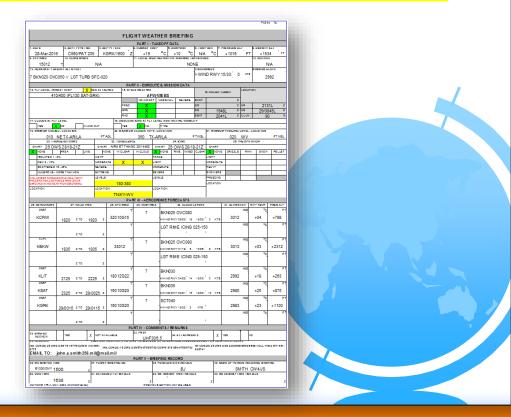
Gray METRO: UHF 306.5



FLIGHT WEATHER BRIEFINGS



- Call 288-9620 or 288-9400
- E-mail: usarmy.hood.3-asog.mbx.3w3-woc@mail.mil
- Please follow up flight weather briefing requests sent via E-mail / Fax with a phone call





FLIGHT WEATHER BRIEFINGS



- IMPORTANT: Aircrews must call 288-9620/9400 after receiving the brief for briefer's initials, brief & void times--otherwise briefing is not official per FHR115-1
- Flight weather briefings will *normally* not be provided any earlier than 2 hours prior to takeoff







FLIGHT WEATHER BRIEFINGS (FHR95-1)



- All VFR/IFR DD Form 175 flight plans require a weather brief from an appropriate weather facility IAW AR 95-1
- Aviators are the only person(s) authorized to receive an official weather brief
- Weather briefings may be in person or telephonically
- In all cases, a weather void time of one and one-half hours apply; time may be extended IAW AR 95-1
- Requests for a DD Form 175-1 should be submitted
 24 hours prior to takeoff and will not be submitted
 any later than 2 hours prior to takeoff



FLIGHT WEATHER BRIEFINGS (FHR95-1)



FIFR:

- A local weather brief [verbal] is authorized for all IFR flights within a 50 nautical miles radius of RGAAF
- DD Form 175-1 is required when outside a 50 nautical mile radius of RGAAF

Helicopter VFR:

- A local weather brief [verbal] is authorized for all flights within the local flying area as defined by this regulation
- A DD Form 175-1 is required for all VFR flights outside the local flying area as defined by this regulation
- A DD Form 175-1 may be requested for any VFR flight





3D Weather Squadron Homepage

www.hood.army.mil/3ws



Fort Hood Home Page







3D Weather Squadron Homepage Misc Briefings



Current MWP 3rd Newmer Squadron

3d Weather Squadron Fort Hood, Tex4s

Current WWAS

CC OUTSTANDING BATTLEFIELD WEATHER SQUADRON"

W 3 WS MISSION PLANNING/EXECUTION FORECAST FLIMSY

To contact us...3 WS DIRECTORY

WEATHER STATION E-MAIL

OD FORECAST FLIMSY

IMAGES BELOW DO NOT DEPICT ACTUAL CONDITIONS CLICK ON THUMBNAILS FOR CURRENT INFORMATION

RT HOOD WEATHER WATCHES, RNINGS, AND ADVISORIES FORT H (WWA) lick above for active Weather Watche Warnings, and Advisories for Fort Hoo

*KGRK OBSERVATION & TAF

FORT HOOD WEATHER

*KHLR OBSERVATION

* Denotes .mil access required

AVIATION WEATHER

PILOT REPORTS (PIREPS)

AIRMETS/SIGMETS

SPACE WEATHER IMPACTS

BRIEFINGS OR OTHER REQUESTS FOR WEATHER SUPPORT:

WEATHER STATION E-MAIL

RGAAF PMSV (Gray Metro): HUE 200 F

FORT HOOD 5-DAY FORECAST Breakdown of Weather Impacts

SATELLITE/RADAR/LIGHTNING/HAZARDS

CENTRAL TEXAS (FORT HOOD) RADAR

N WEATHER BRIEF SEMI-ANNUAL AVIATI (WINTER)

JANUARY 30

WEDNESDAY

AIR TRAFFIC CONTROL WEATHER TRAINING

DAILY METCON QUESTION

PERFORMANCE METRICS: HOW WELL ARE WE FORECASTING?

DOD WEATHER

AIR FORCE WEATHER WEB SERVICES (AFW-

*26th OPERATIONAL WEATHER SQUADRON

*15th OPERATIONAL WEATHER SQUADRON

Current Obs



3 WS Mission Weather Product (MWP) - Flimsy

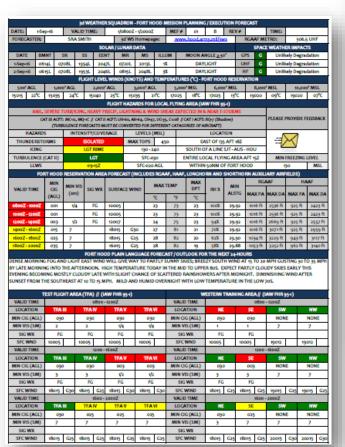


- Located on our web page: www.hood.army.mil/3ws
- Updated 3 times daily (0000Z, 0800Z, 1600Z)
- IMPORTANT: Check 3 WS website periodically for changes especially during inclement weather



MWP (3 WS Flimsy)







www.hood.army.mil/3ws/Flimsy/MEF.pdf



MWP – Flight Hazards



HAIL, SEVERE TURB/ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN & NEAR T-STORMS						
CAT III ACFT: MC-12, MQ-1C // CAT II ACFT: UH-60, AH-64, CH-47, UC-35, C-208 // CAT I ACFT: RQ-7 (Shadow) (TURBULENCE FORECASTS MUST BE CONVERTED FOR DIFFERENT CATAGORIES OF AIRCRAFT)						EEDBACK
HAZARDS	INTENSITY/COVERAGE	LEVELS (MSL)		LOCATION		
THUNDERSTORMS	ISOLATED	MAX TOPS 450		EAST OF 135 AFT 18Z	=======================================	
ICING	LGT RIME	130 - 24	40	SOUTH OF A LINE SJT - AUS - HOU		
TURBULENCE (CAT II)	LGT	SFC-030		SFC-030 ENTIRE LOCAL FLYING AREA AFT 15Z		LEVEL
LLWS	09-15Z	SFC-020 AGL		SFC-020 AGL WITHIN 50NM OF FORT HOOD		MSL

Flight hazards are for the Local Flying Area as defined in FHR95-1 and are color coded for the threat based on table below

FLIGHT HAZARDS FOR LOCAL FLYING AREA IMPACT CRITERIA							
Criteria	Green	Amber	Red				
Thunderstorms	None		Any				
Icing	None	Light	≥ Moderate				
Turbulence (CAT II)	None - Light	Moderate	≥ Severe				
LLWS	None	Forecast and/or Observed					



MWP – Turbulence



	HAIL, SEVERE TURB/ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN & NEAR T-STORMS						EEDBACK
	CAT III ACFT: MC-12, MQ-1C // CAT II ACFT: UH-60, AH-64, CH-47, UC-35, C-208 // CAT I ACFT: RQ-7 (Shadow) (TURBULENCE FORECASTS MUST BE CONVERTED FOR DIFFERENT CATAGORIES OF AIRCRAFT)						LEDDITCK
ı	HAZARDS	INTENSITY/COVERAGE	LEVELS (MSL)		LOCATION		
I	THUNDERSTORMS	ISOLATED	MAX TOPS 450 EAST OF 135 AFT 18Z				
I	ICING	LGT RIME	130 - 24	40	SOUTH OF A LINE SJT - AUS - HOU		
d	TURBULENCE (CAT II)	LGT	SFC-030		SFC-030 ENTIRE LOCAL FLYING AREA AFT 15Z		LEVEL
1	LLWS	09-15Z	SFC-020 AGL		SFC-020 AGL WITHIN 50NM OF FORT HOOD		MSL

- An aircraft's sensitivity varies considerably with its weight (amount of fuel, cargo, munitions, etc.), air density, wing surface area, wing sweep angle, airspeed, and aircraft flight "attitude"
- Turbulence forecasts are based on CAT II aircraft and must be converted for different categories of aircraft*
 - *Air Force Handbook 11-203, Volume 2 / Army Training Circular 3-04.96-2

 Weather for Aircrews Products and Services



MWP – Fort Hood Reservation Forecast



I	FORT HOOD RESERVATION AREA FORECAST (INCLUDES RGAAF, HAAF, LONGHORN AND SHORTHORN AUXILIARY AIRFIELDS)														
	VALID TIME	MIN CIG	MIN VIS	SIC MIN	CUDEA	CE WIND	MAX	TEMP	MAX DPT	DII 9	RH% MIN ALSTG	RGA	AF	НА	AF
I	VALID TIME	(AGL)	(sm)	SIG WX	SURFAC	CEWIND	°C	°F	°C	КН %		MAXPA	MAXDA	MAXPA	MAXDA
I	1600Z - 1800Z	NONE	7		04012	G35	29	84	15	43%	29.92	1016 ft	3343 ft	925 ft	3231ft
I	1800Z - 2000Z	030	3	BR	16027	G22	29	84	16	45%	29.90	1034ft	3365 ft	943 ft	3253 ft
I	2000Z - 2200Z	020	2	BR	16027	G25	31	88	14	36%	29.88	1053 ft	3663 ft	962 ft	3550 ft
I	2200Z - 2400Z	015	2	BR	16027	G30	29	84	15	43%	29.50	1407 ft	3821ft	1316 ft	3709 ft
I	0000Z - 0200Z	010	11/2	BR	16027	G38	25	77	16	57%	29.60	1313 ft	3166 ft	1222 ft	3054ft
I	0200Z - 0400Z	004	1/4	FG	16010		21	70	16	73%	30.30	666 ft	1842 ft	575 ft	1729 ft

- Color coded based on forecast conditions/threat (2-hour blocks)
- Forecast is for worse case conditions for the time period
- PA and DA specifically for RGAAF and HAAF

Criteria	Green	Amber	Red				
Minimum Ceiling	≥ 5,000	< 5,000	< 500				
Minimum Visibility	≥ 5sm	< 5sm	< 1/2sm				
Significant <u>Wx</u>	None	Any Precip	TS and/or FZ				
Winds	< 25 kts	≥ 25 kts	≥ 45 kts				



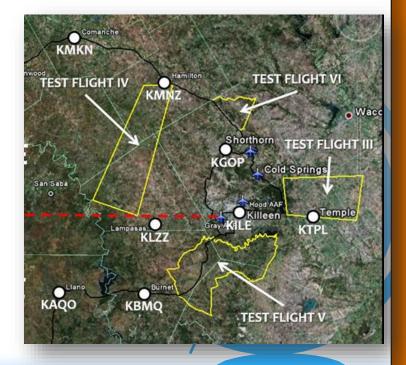
MWP – Maintenance Test Flight Areas



TEST FLIGHT AREA (TFA) # (IAW FHR 95-1)								
VALID TIME		1600 - 2000Z						
LOCATION	TFA	Ш	TFA	V	TFA V		TFA VI	
MIN CIG (AGL)	060	0	009	,	060)	060	
MIN VIS (SM)	5		1/4		1/4		5	
SIG WX	BR		TSR	A	BR		BR	
SFC WND	14015	G27	14015	G50	14015		14015	G27
VALID TIME			2	000-	0000Z			
LOCATION	TFA	Ш	TFA IV		TFA V		TFA VI	
MIN CIG (AGL)	060	0	060		060		060	
MIN VIS (SM)	5		5		5		5	
SIG WX	BR		BR		BR		BR	
SFC WIND	14015	G27	14015	G27	14015	G27	14015	
VALID TIME			C	0000 -	0400Z			
LOCATION	TFA	Ш	TFA	V	TFA	V	TFA	VI
MIN CIG (AGL)	060	0	060)	060)	060)
MIN VIS (SM)	5	5 5			5		5	
SIG WX	BR		BR		BR		BR	
SFC WIND	14015	G27	14015	G27	14015	G27	14015	G27

- Primary Test Flight Areas as defined in FHR95-1
- 4-hour forecasts color-coded based on the table below

TEST FLIGHT AREAS & WTA FORECAST IMPACT CRITERIA							
Criteria Green Amber Red							
Minimum Ceiling	≥3,000	< 3,000	< 1,000				
Minimum Visibility	≥ 3sm		< 3sm				
Significant <u>Wx</u>	None	Any Precip	TS and/or FZ				
Winds	< 35 kts	≥ 35 kts	≥ 45 kts				





MWP – Western Training Area (WTA)



WES	WESTERN TRAINING AREA // (IAW FHR 95-1)							
VALID TIME		1600 - 2000Z						
LOCATION	NE		SE		SW		NW	
MIN CIG (AGL)	060	0	060		060)	060	0
MIN VIS (SM)	5		5		5		5	
SIG WX	BR		BR		BR		BR	
SFC WND	14015	G27	14015	G27	14015	G27	14015	
VALID TIME			2	000-	0000Z			
LOCATION	NE		SE		SW		NW	
MIN CIG (AGL)	060)	060		060		060	
MIN VIS (SM)	5		5		5		5	
SIG WX	BR		BR		BR		BR	
SFC WIND	14015	G27	14015	G27	14015	G27	14015	G27
VALID TIME			0	000 -	0400Z			
LOCATION	NE		SE		SW	1	NV	/
MIN CIG (AGL)	060	0	060		060		060	0
MIN VIS (SM)	5		5		5		5	
SIG WX	BR		BR		BR		BR	
SFC WIND	14015	G27	14015	G27	14015	G27	14015	G27

- WTA as defined by FHR95-1 (separated into 4-sections)
- 4-hour forecasts color-coded based on the table below

TEST FLIGHT AREAS & WTA FORECAST IMPACT CRITERIA							
Criteria	Green	Amber	Red				
Minimum Ceiling	≥3,000	< 3,000	< 1,000				
Minimum Visibility	≥ 3sm		< 3sm				
Significant <u>Wx</u>	None	Any Precip	TS and/or FZ				
Winds	< 35 kts	≥ 35 kts	≥ 45 kts				



5-Day Forecast





Fort Hood 5-Day Weather Outlook & Effects

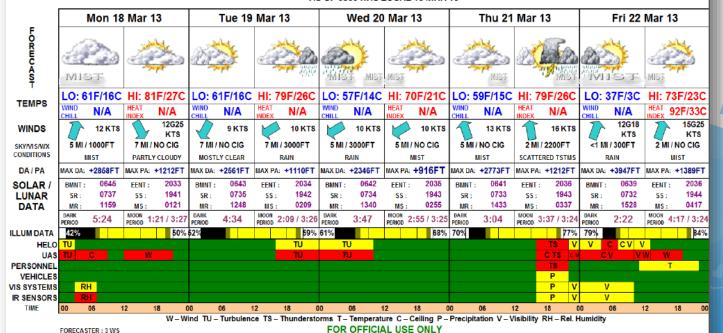
March Climatology

Avg Hi: 72F Avg Low: 51F

Avg Precip: 2.5 Inches

FORT HOOD 5-DAY FORECAST

AS OF 0300 HRS LOCAL 18 MAR 13



FOR PLANNING PURPOSES ONLY

Integrity - Service - Excellence



5-Day Forecast Impacts



		FOR PLANNING ONL	.Y
OPERATION	FAVORABLE	MARGINAL	UNFAVORABLE
OFERATION	(No Degradation)	(Some Degradation)	(Significant Degradation)
HELO	CIG >= 1000 FT	CIG 500 - 999 FT	CIG < 500 FT
	VIS >= 4800 METERS	VIS 0800 - 4799 METERS	VIS < 0800 METERS
	WIND < 35 KTS	WIND 35 - 44 KTS	WIND >= 45 KTS
			LGT OR MDT OR SVR TSTM
			LGT OR MDT OR HVY FZ PRECIP
		MDT TURB	SVR TURB
		LGT OR MDT ICING	SVR ICING
UAS	CIG >= 5000 FT	CIG 3000 - 4900 FT	CIG < 3000 FT
	VIS >= 8000 METERS	VIS 4800 - 6000 METERS	VIS < 4800 METERS
	WIND < 25 KTS		WIND >= 25 KTS
		LGT OR MDT PRECIP	HVY PRECIP
			LGT OR MDT OR SVR TSTM
			LGT OR MDT OR HVY FZ PRECIP
		LGT TURBC	MDT OR SVR TURBC
			LGT OR MDT OR SVR ICING
PERSONNEL	TEMP 33 - 84 F	TEMP < 33 F	TEMP <= -25 F
		TEMP >= 85 F	TEMP >= 95 F
	LGT PRECIP	MDT PRECIP	HVY PRECIP
			LGT OR MDT OR SVR TSTM
VEHICLES	LGT PRECIP	MDT PRECIP	HEAVY PRECIP
		LGT FZ PRECIP	MDT OR HVY FZ PRECIP
	TEMP 01 - 104 F	TEMP < 1 F	
		TEMP > 104 F	
VIS SYSTEMS	VIS >= 3200 METERS	VIS 1000 - 3199 METERS	VIS < 1000 METERS
	LGT PRECIP	MDT PRECIP	HVY PRECIP
	TEMP < 100 F	TEMP >= 100 F	
	REL HUMIDITY < 80%	TEMP < -25 F	
		REL HUMIDITY >= 80%	
IR SENSORS	VIS >= 3200 METERS	VIS < 3200 METERS	
	LGT PRECIP	MDT PRECIP	HVY PRECIP
	TEMP 20 - 125 F		TEMP > 125 F
	REL HUMIDITY < 80%		TEMP < -25 F
			REL HUMIDITY >= 80%

FHR115-1



Forecast Performance Metrics



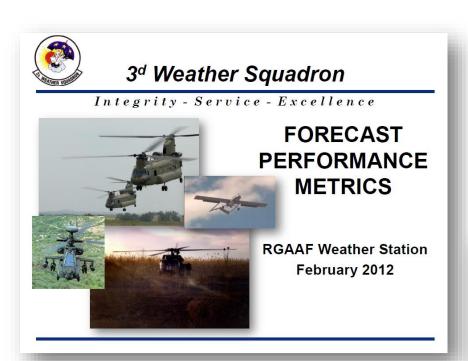
- How well are we forecasting mission impacting weather?
- Best measure of our performance is direct feedback from aircrews:
 - Click on "Feedback Icon" on flimsy; send an E-mail
 - Complete Flight Weather Briefing Feedback Form on our webpage or faxed with all DD175-1s
 - Call 3 WS/DOV 288-4259
- We'll take good and bad comments!!!

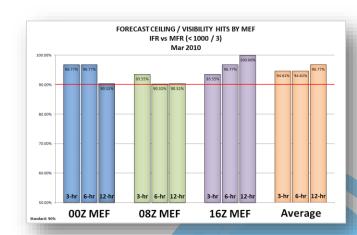


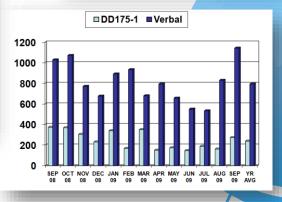
Monthly Performance Metrics



Check out our monthly performance reports on our web site: www.hood.army.mil/3ws/MEFVERFeedback.ppt









Objective Verification



- In addition to direct feedback we employ an objective method to measure (verify) our forecast performance:
 - We selected three key operational parameters:
 - Ceiling / Visibility < 1000 feet / 3 miles (IFR)</p>
 - Ceiling / Visibility < 500 feet / 1/2 mile (HLR Airfield Minimums)</p>
 - Thunderstorms
 - We measure the accuracy of each Fort Hood Reservation Forecast (Flimsy) published on the 3 WS web page



Did the Forecast or Weather Impact the Mission?



- Did we forecast "GO" weather for your mission and weather was a "GO" -- mission completed
- Did we forecast "GO" weather for your mission and weather was a "NO GO" -- mission cancelled or changed due to unforecast weather
- □ Did we forecast "NO GO" weather for your mission and weather was "GO"-- mission cancelled or changed due to forecast (lost opportunity or needless change)
- Did we forecast "NO GO" weather for your mission and weather was "NO GO" -- mission cancelled or changed due to forecast/weather (if inserted early in planning process this situation can prevent wasted time and enhance planning process)



POCs



- 3 WS Commander: **288-1313**

3 WS Operations Officer: 287-7397

Operations Superintendent: 287-2960

RGAAF Weather Station: 288-9620/9400

RGAAF Weather Station NCOIC288-9166

Gray METRO: UHF 306.5



SUMMARY



- Local Area Influences
- Summer Climatology
- Hazards
- Training Areas
- Watches/Warnings/Advisories
- Weather Operations
- POCs



